

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B01J21/16 B01J23/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J C10G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | US 2002/092812 A1 (JONES WILLIAM ET AL) 18 July 2002 (2002-07-18) paragraph '0020! paragraph '0025! paragraph '0027! paragraph '0032! - paragraph '0035! paragraph '0038! paragraph '0053! - paragraph '0055! | 1-8 |
| X | US 2002/110520 A1 (JONES WILLIAM ET AL) 15 August 2002 (2002-08-15) paragraph '0037! paragraph '0057! paragraph '0061! paragraph '0065! paragraph '0068! ----- -/-- | 1-8 |



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

21 March 2005

Date of mailing of the international search report

04/04/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl
Fax (+31-70) 340-3016

Authorized officer

Cubas Alcaraz, J

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | US 2002/111263 A1 (JONES WILLIAM ET AL) 15 August 2002 (2002-08-15) paragraph '0049! - paragraph '0051! paragraph '0053! paragraph '0067! paragraph '0070! - paragraph '0072! ----- | 1-8 |
| A | EP 0 278 535 A (AKZO NV) 17 August 1988 (1988-08-17) cited in the application the whole document ----- | 1-8 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/013914

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|----------------------------|---------------------|
| US 2002092812 | A1 | 18-07-2002 | AT 279375 T | 15-10-2004 |
| | | | BR 0207085 A | 20-01-2004 |
| | | | CA 2437604 A1 | 19-09-2002 |
| | | | DE 60201577 D1 | 18-11-2004 |
| | | | WO 02072474 A1 | 19-09-2002 |
| | | | EP 1358127 A1 | 05-11-2003 |
| | | | JP 2004529839 T | 30-09-2004 |
| US 2002110520 | A1 | 15-08-2002 | BR 0207075 A | 27-01-2004 |
| | | | CA 2437556 A1 | 06-09-2002 |
| | | | WO 02068329 A1 | 06-09-2002 |
| | | | EP 1358128 A1 | 05-11-2003 |
| | | | JP 2004522686 T | 29-07-2004 |
| US 2002111263 | A1 | 15-08-2002 | BR 0207012 A | 02-03-2004 |
| | | | CA 2437607 A1 | 22-08-2002 |
| | | | CN 1491186 A | 21-04-2004 |
| | | | WO 02064499 A2 | 22-08-2002 |
| | | | EP 1358126 A2 | 05-11-2003 |
| | | | JP 2004523456 T | 05-08-2004 |
| EP 0278535 | A | 17-08-1988 | AT 60874 T | 15-02-1991 |
| | | | AU 609763 B2 | 09-05-1991 |
| | | | AU 1021288 A | 14-07-1988 |
| | | | BR 8707099 A | 02-08-1988 |
| | | | CA 1314862 C | 23-03-1993 |
| | | | DE 3861771 D1 | 21-03-1991 |
| | | | EP 0278535 A1 | 17-08-1988 |
| | | | GR 3001934 T3 | 23-11-1992 |
| | | | JP 2678276 B2 | 17-11-1997 |
| | | | JP 63182031 A | 27-07-1988 |
| | | | US 4866019 A | 12-09-1989 |
| | | | US 4946581 A | 07-08-1990 |
| | | | US 4952382 A | 28-08-1990 |